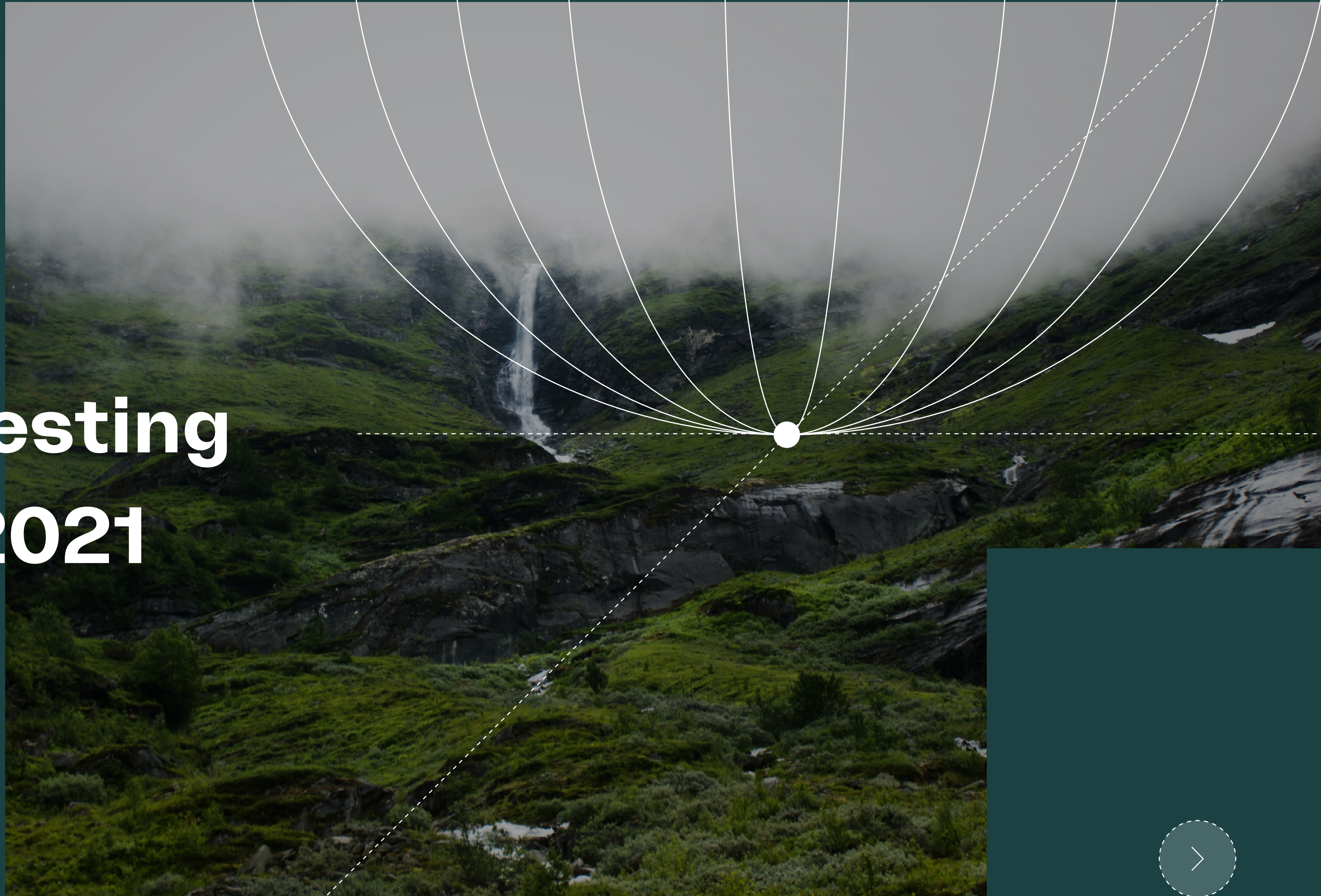


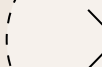
Ferd Impact Investing Impact Report 2021





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Chapter 1: Introduction



About Ferd

Ferd is a family-owned investment company owned by the fifth and sixth generations of the Andresen family. Our investment company is called Ferd ('journey') because, in the true sense of the word, it represents 'a travel without an end.'

The company's vision is to create enduring value and leave clear footprints. This brings the challenge of creating a return from multiple perspectives – not just from a financial perspective – and describes what all of us at Ferd strive to achieve.

Ferd's wide-ranging activities encompass active ownership and corporate development of private and listed companies, investment in financial assets, real estate development, investments via external managers, impact investing and social entrepreneurship.

About Ferd Impact Investing

Ferd Impact Investing invests in early-phase companies with the potential to have a positive impact on the climate and environment and to generate a robust risk-adjusted financial return.

We primarily invest through funds and other forms of complementary and resource-efficient partnerships. We also actively co-invest with our fund managers in their portfolio companies.

Our investments span a range of geographies and industries. We concentrate on three areas in which Ferd has a strong position and significant expertise: Energy transition, sustainable cities and ocean & aquaculture.

About this impact report

When we first established our investment mandate in 2019, the number of investment opportunities was somewhat limited. Only a few early-stage companies had impact at the core of their strategies. There was a clear distinction between "regular" venture capital funds and venture capital funds focusing on making a clear impact.

Now, in 2022, we see an abundance of investment opportunities. Impact is a key value driver for both companies and funds, and their approach to impact is becoming sophisticated and well-informed.

Our portfolio companies and funds all report on their impact – and we require them to do so. Through this report, we want to present the aggregated impact of our portfolio so far.

Thanks for reading!

Ferd Impact Investing in a nutshell

(as of Q2 2022)



16
investments

8 funds
8 direct investments and co-investments



Global footprint

We are directly and indirectly invested in **14 countries** across **4 continents**



100%
of our funds have
dedicated impact reports



Impact highlights*

290k tons of CO2 equivalents abated | **133 GWh** energy produced

*Not adjusted for Ferd's percentage ownership



We have invested and committed

~ MNOK 500

Our investments have contributed to the following **UN Sustainable Development Goals**:



Our investment areas



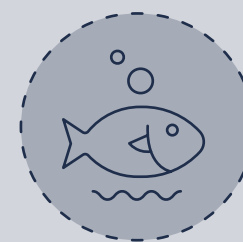
Energy transition

The global energy sector must transition from fossil-based to zero-carbon by the second half of this century. We invest in new technologies and business models to achieve this target.



Sustainable cities

A sustainable city is engineered to improve its environmental impact. We invest in sectors that require systemic changes if we are to make our cities greener, such as construction and real estate, mobility, waste management and our food systems.



Ocean & aquaculture

The ocean is the heart and lungs of our planet. In addition, seafood is recognised as the most environmentally friendly source of animal proteins. Yet, the ocean faces existential threats through overfishing, pollution and climate change. We invest in solutions to save our oceans and secure more sustainable aquaculture solutions.



















































Broad impact

We also invest in companies and funds outside our three investment areas, as long as they have a significant environmental or climate impact potential.
























































A growing portfolio of funds and partnerships that match our area focus

Fund investments	About	HQ
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Fund IV</div>	The Ecosystem Integrity Fund is an early growth stage investor in companies contributing to environmental sustainability within renewable energy, energy transition, waste reduction and transport.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Fund II</div>	Momentum is a Bergen-based venture fund that invests in sustainable, innovative and ambitious companies in an early growth phase.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Fund I</div>	2150 is a venture capital firm investing in technology companies that seek to sustainably reimagine and reshape the urban environment and enable a sustainable and scalable future of mass urbanisation.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Fund I</div>	Swen Blue Ocean is an impact fund investing in innovations that help regenerate ocean health, hence contributing to achieving SDG14.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Fund II, III, IV</div>	Startuplab is an incubator and early-stage investor for Norway’s most ambitious technology startups.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Partnership</div>	Arkwright X Investment Family (AXIF) is an Oslo-based club deal structure. AXIF invests in early-stage B2B tech companies with attractive business models and and the potential to positively impact the UN SDGs.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Partnership</div>	Dovetail is an investment company that focuses on tech-enabled products and services.	
<div><div><div><div></div><div></div><div></div><div></div></div><div></div></div>Infrastructure</div>	NeXtWind is building a portfolio of onshore wind energy assets in Germany, with the ambition to either replace the old wind turbines with new and more efficient turbines (repowering) or to increase the lifetime of the existing turbines (life extension).	

 Energy transition
  Sustainable cities
  Ocean & aquaculture
  Broad impact

Our portfolio companies are mainly co-investments with our fund managers

We also invest in companies where we see a particularly strong partnership.

Co-investments	Co invested with	About	HQ
<div>     </div> <div>   </div>		Shoreline is a Stavanger-based enterprise SaaS company for the wind industry. The company provides intelligent simulation and optimisation solutions for project development and field operations management for wind energy assets.	
<div>     </div> <div>   </div>		360 Logistics is a third-party logistics provider focusing on efficient and sustainable last-mile delivery.	
<div>     </div> <div>   </div>		Yellowsack provides on-demand dumpster bags and pick-up services across the US West Coast. They enable hassle-free waste removal for residential and business, kind to environment and time.	
<div>     </div> <div>   </div>		Blue Ocean Technology (BOT) produce compact, efficient systems for handling sludge in aquaculture. Although part of the impact investing reporting, the BOT investment is made through Ferd Capital’s portfolio company Broodstock Capital.	
<div>     </div> <div>   </div>		Ignite Procurement provides solutions for every aspect of strategic procurement. Embedded in the system is an easy way of collecting qualitative information about sustainability, certifications and performance from suppliers and employees to make green decisions and innovate.	
Direct investments		About	HQ
<div>     </div> <div>  </div>		Seagust will harness the offshore wind to further develop renewable energy and build a stronger Norwegian supplier industry.	
<div>     </div> <div>  </div>		Wind Catching Systems (WCS) develops a disruptive concept for offshore floating wind energy, with a potential to produce green electricity at a significantly lower LCOE than other floating wind technologies and in a smaller area.	
<div>     </div> <div>  </div>		Antler is the world’s largest early-stage investment platform, investing in skilled and visionary people worldwide. Antler’s portfolio companies solve genuine challenges and create sustainable value that makes the world a better place.	

- 
Energy transition
- 
Sustainable cities
- 
Ocean & aquaculture
- 
Broad impact

Chapter 2: Our impact approach



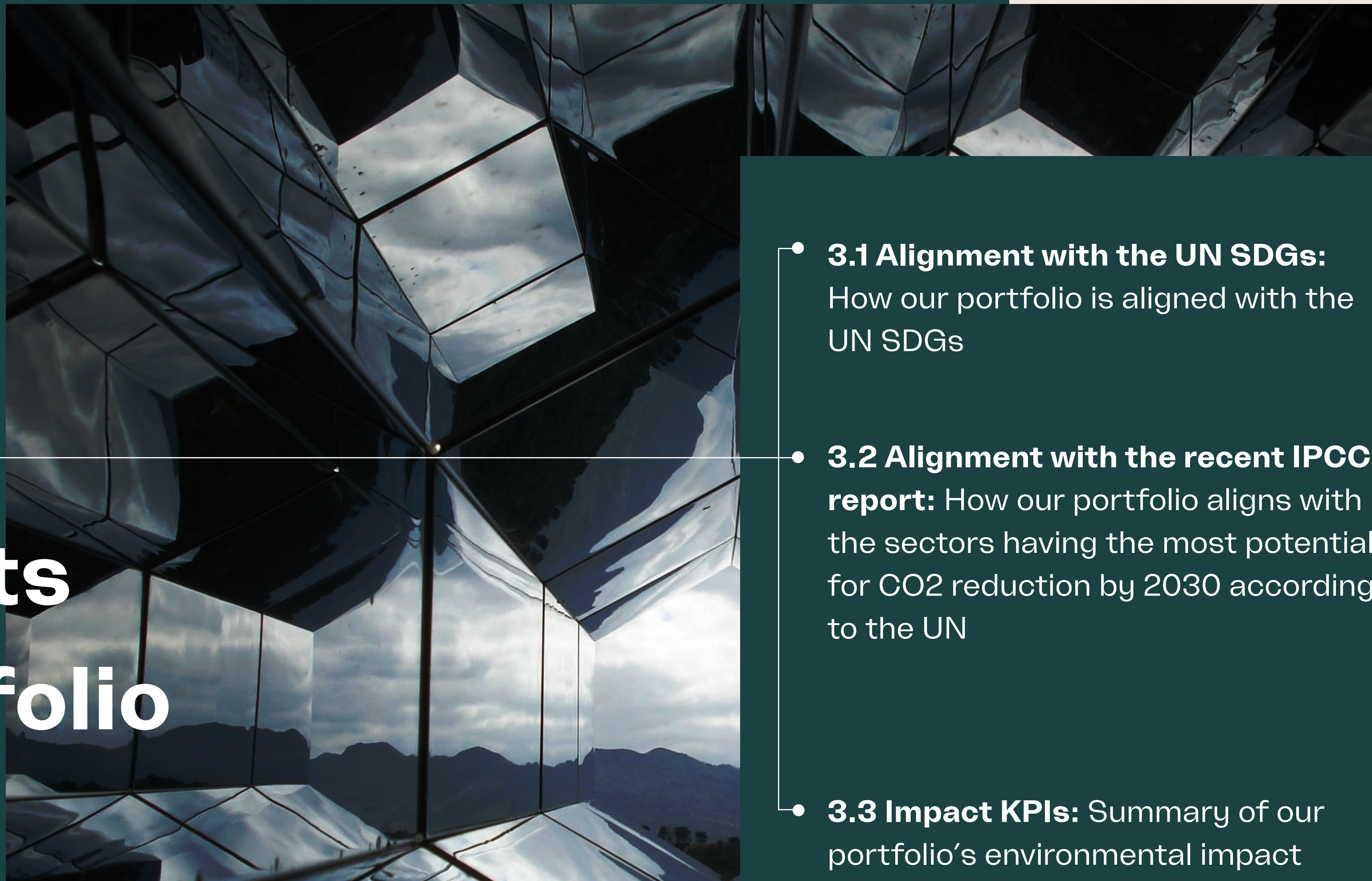
We use our impact lenses through the whole investment cycle



*Sustainable Finance Disclosure Regulation ("SFDR"). An Article 9 Fund under SFDR is defined as "a Fund that has sustainable investment as its objective or a reduction in carbon emissions as its objective." The are certain reporting barriers to be Article 9 compliant making it especially difficult for early-stage funds

Chapter 3:

Impact highlights across our portfolio



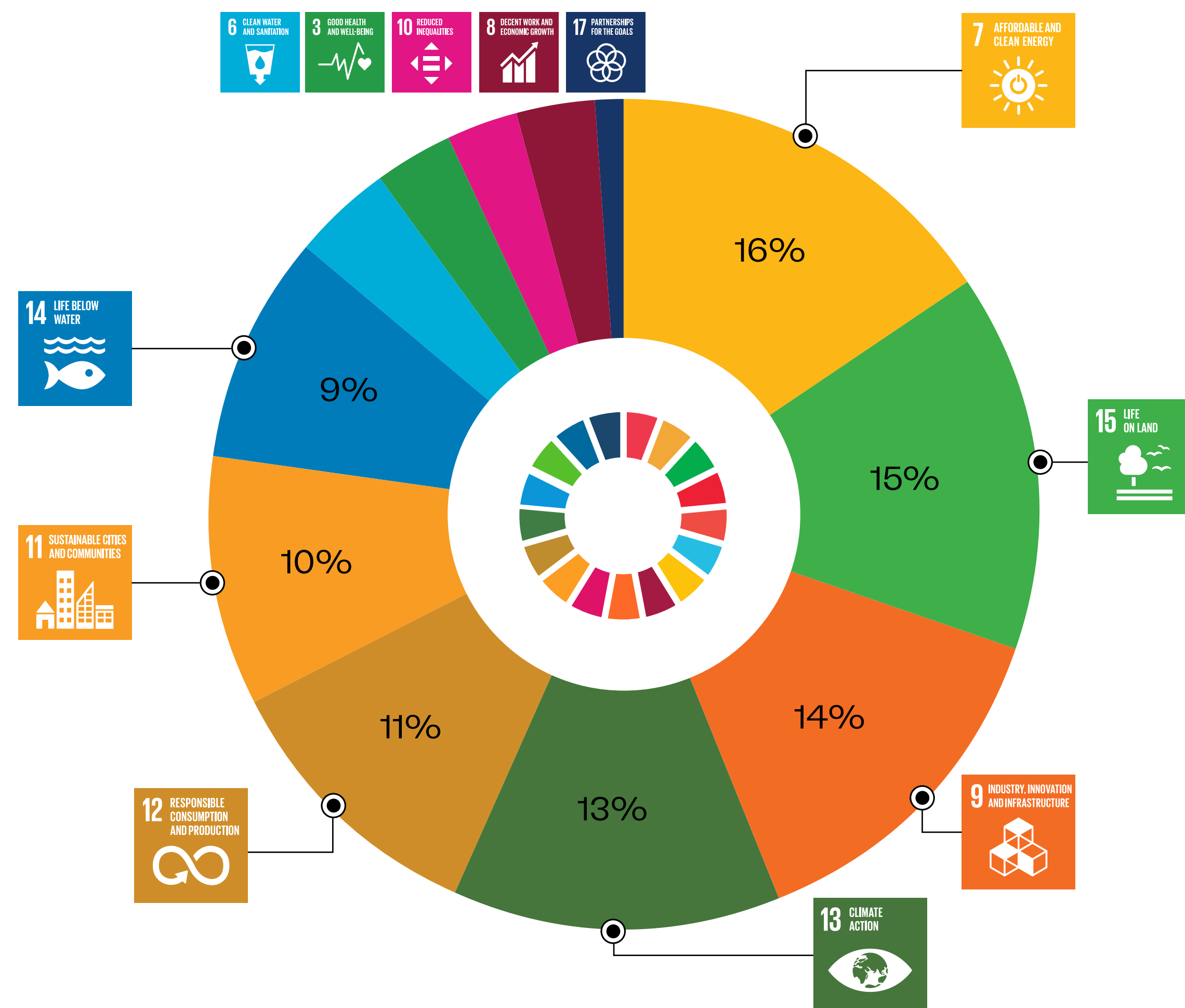
- **3.1 Alignment with the UN SDGs:**
How our portfolio is aligned with the UN SDGs
- **3.2 Alignment with the recent IPCC report:** How our portfolio aligns with the sectors having the most potential for CO2 reduction by 2030 according to the UN
- **3.3 Impact KPIs:** Summary of our portfolio's environmental impact



7 SDGs stand for more than 85% of the value-weighted distribution

The chart to the right shows how Ferd Impact Investing's portfolio targets the different sustainable development goals, based on the value-weighted invested and committed capital. In total 12 SDGs are covered by our portfolio.

All of our top 7 SDGs have
a strong environmental and climate impact

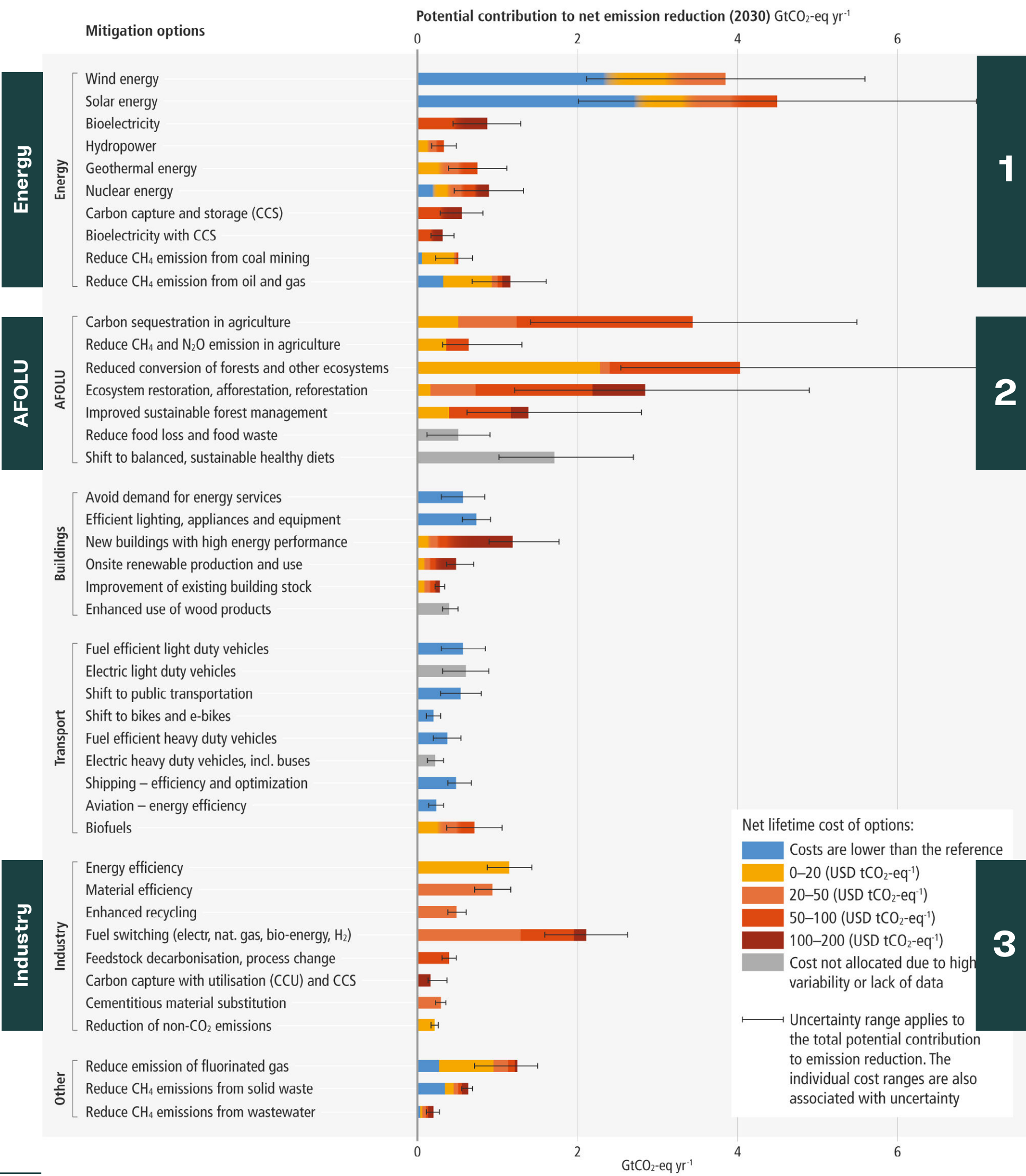


How our portfolio aligns with UN’s identified CO2 reduction potential

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.

The graph to the right is taken from the last IPCC report, Climate Change 2022: Mitigation of Climate Change. It is an overview of CO2 mitigation options and their estimated ranges of costs and potentials in 2030. The main takeaways are:

Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.



1 There is a colossal reduction potential at a low cost within wind and solar energy.

2 Agriculture, forestry and other land use (AFOLU) offer big opportunities at a slightly higher cost, but a significant share of the opportunity lies within the current CO2 price.

3 There are relatively cost-efficient opportunities to reduce industrial emissions through fuel switching, energy efficiency, material efficiency and enhanced recycling.

Source: Figure SPM 7 from the IPCC report “Climate change 2022: Mitigation of Climate Change”, April 2022

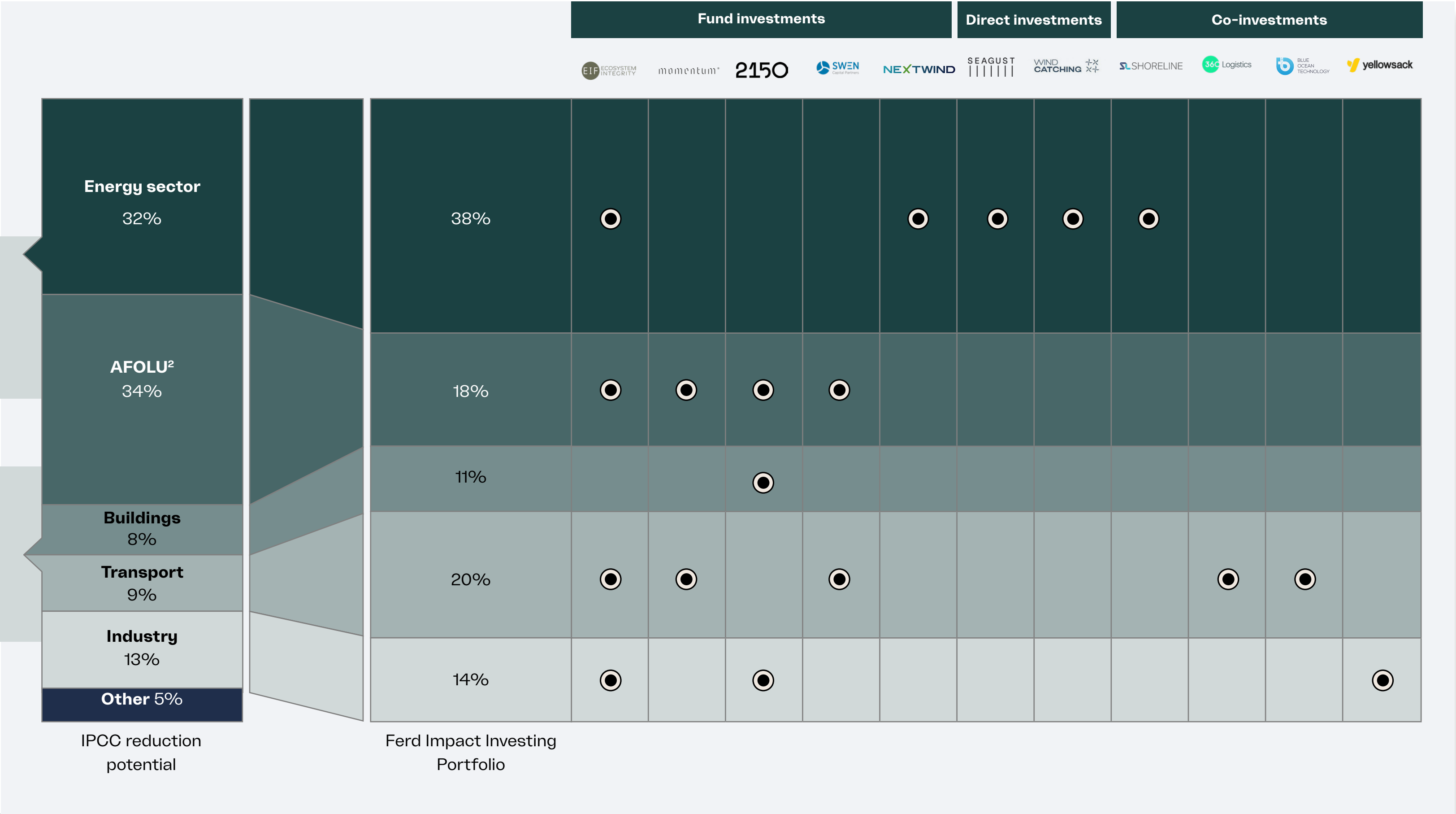
The majority of our portfolio contributes to key emission reduction areas identified by the latest IPCC report

The graph to the right shows how Ferd Impact Investing’s portfolio contributes to the CO2 emissions reduction potential identified in the latest IPCC report¹.

We have invested relatively more within the energy sector. This reflects the reduction potential at a relatively low cost within the sector and our competence and synergies with the rest of the Ferd portfolio.

Compared to the IPCC, we are also overweighted in the building and transport sectors combined. This is because the two sectors are connected to sustainable cities, which is one of our three main investment areas.

Note: Antler, StartupLab and Ignite Procurement are not included as these are broad investments
¹We have allocated our fund commitments to each sector based on the current portfolio of each fund
²Agriculture, Forestry and Other Land Use



Aggregated impact¹

290k tonnes CO2e abated

equivalent to more than 63,000 cars removed from roads²

133 GWh energy produced

equivalent to the annual electricity consumption of ~20,000 German inhabitants³

Impact highlights across our portfolio¹

Ferd sector focus	From portfolio companies in	Impact metric	2021
     EIF ECOSYSTEM INTEGRITY		CO2 abated (tonnes)	12,729
		Reduction in waste (lbs)	845,000
		Energy produced (MWh)	337
     momentum [®]  BLUE OCEAN TECHNOLOGY		Grazed with Nofence collars (km2)	6,104
		Fuel reduction per voyage with Navidium software	7.1%
		Energy efficiency in processing (average kWh per hour)	7.5
     2150		CO2 abated (tonnes)	277,000
     NEXTWIND		Energy produced (MWh)	133,100
     yellowsack		Handled waste (tonnes)	8,016

¹ Not adjusted for Ferd’s percentage ownership

² United States EPA, Greenhouse Gas Emissions from a Typical Passenger Vehicle

³ Indexmundi.com



Energy transition



Sustainable cities



Ocean & aquaculture




Broad impact

Chapter 4: Selected case studies



Direct investment

 Berlin, Germany

<https://www.nextwind.de/>



Impact Metrics:

Annual output in 2021: 133 Gwh

In the future NextWind will be able to measure the increase in energy output per site following the repowering or life extension.

Repowering aged onshore wind installations

Problem

- Reducing CO2 emissions is at the heart of the world's accelerating shift from polluting fossil fuels toward clean, renewable forms of energy.
- Germany is transitioning away from coal and nuclear, and require significant added capacity from renewable sources, including from onshore wind.
- Germany is decreasing dependence from Russian gas leading to less attractive economics for gas-fired power plants and a need for further investment in renewables.

Solution

- NeXtWind is building a portfolio of onshore wind energy assets in Germany, with the ambition to either replace the old wind turbines with new and more efficient turbines (repowering) or to increase the lifetime of the existing turbines (life extension).
- Electricity production on existing and proven wind sites increases by a factor of three on average with the use of the latest wind turbine technology.

Intended impact

- Reduced LCOE (Levelized Cost Of Energy) through increased scale and more efficient wind energy production.
- Significantly increased power production from already established onshore wind locations.
- Fewer turbines per location, providing an easier integration in the landscape and improved visual impacts.

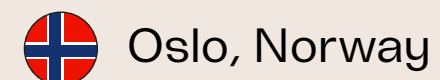
IPCC sector contribution

Energy – Wind energy





Co-invested with Arkwright X

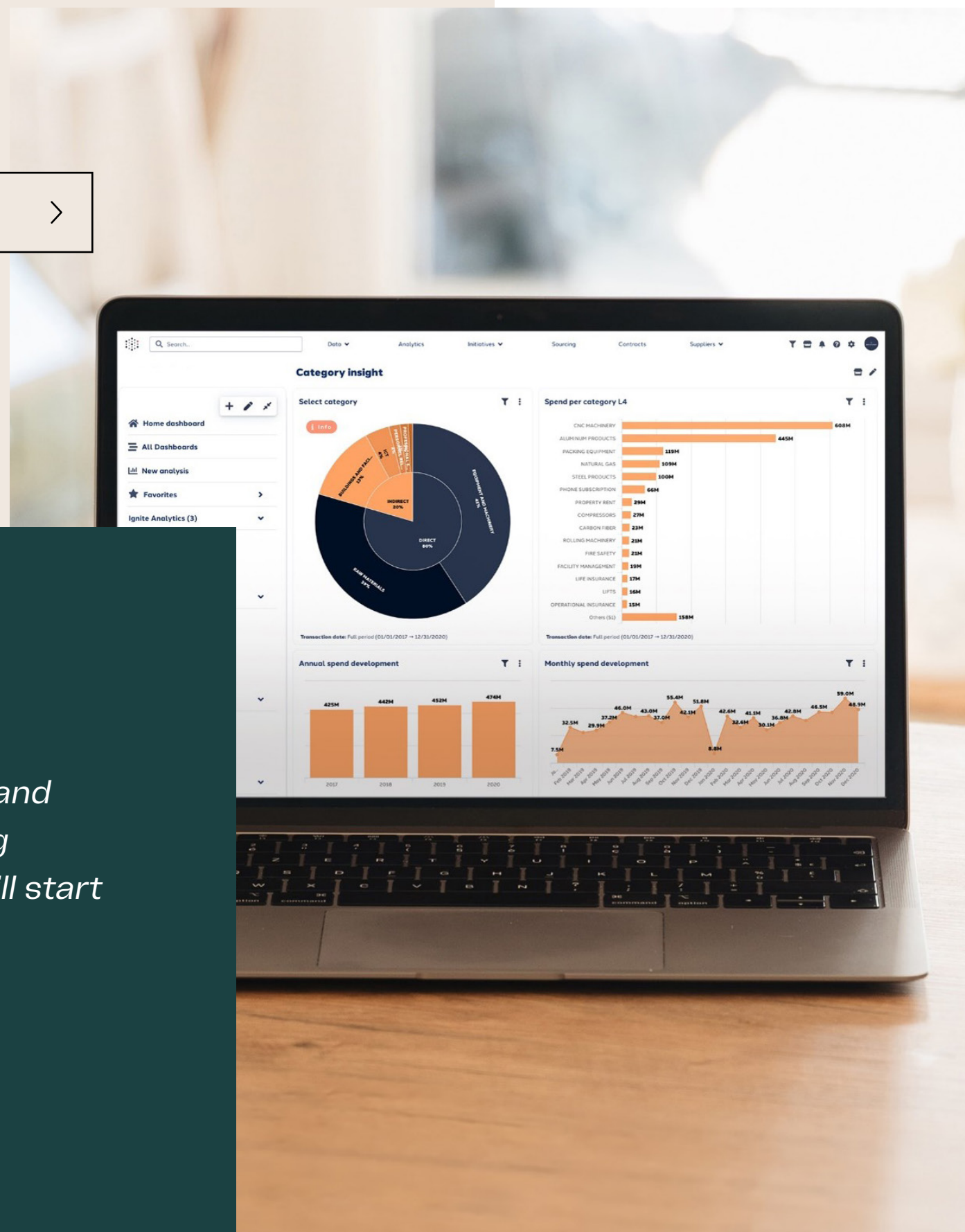


Oslo, Norway

<https://www.igniteprocurement.com/> >

Impact Metrics:

Sustainability modules piloted in 2021, and being implemented for new and existing customers from 2022. The company will start reporting on impact next year.



Procurement software enabling reduced spend and improved sustainability

Problem

- Spend management isn't easy; data, technology, and resource chaos is everywhere. The process is manual and time-consuming, with siloed and unreliable data.
- Companies lack a system to organize and carry out due diligence about the suppliers to understand supplier risk.
- In addition, CO2 emissions trackers are often separate systems from the procurement systems, requiring a lot of manual work to make actionable insights.

Solution

- Ignite provides solutions for every aspect of strategic procurement, and currently, over 100 bUSD spend is managed in the solution.
- Embedded in the system is an easy way of collecting qualitative information about sustainability, certifications and performance from suppliers and employees to make green decisions and innovate.
- The company uses AI and conversion enrichments to automatically track and measure CO2 emissions, so companies can go carbon-negative and nature-positive.

Intended impact

- Better understand the supplier risk in the supply chain.
- Enabling companies to track and measure scope 3 carbon emissions.


IPCC sector contribution

Will be an enabler for CO2 emission reduction across sectors, as well as ensure responsible production of goods and services consumed by companies.





Portfolio company of 2150

 Durham, NC, USA

<https://biomason.com/>



Impact Metrics:

Biomason's goal is for Biocement material to remove 25% of carbon emissions from the concrete industry by 2030.

Zero emission biological cement

Problem

Cement accounts for 4.2% of all global greenhouse gas emissions, stemming from highly energy-intensive cement kilns and process emissions of CO₂ as a byproduct. Emissions from cement are 2.5x that of the aviation industry.

Solution

Biomason makes cement fundamentally differently, growing cement the same way nature does, addressing the root cause of carbon emissions. Rather than burning limestone and releasing CO₂ like traditional cement, biocement forms through multiple patented, biological processes.

Biomason has a partnership with IBF, Denmark's largest concrete manufacturer, to produce Biomason bio-LITH® precast concrete products at its facility in Ikast, which will serve as the primary factory for European orders.

Intended impact

Potential to reduce cradle-to-gate carbon emissions of cement by more than 90%.


IPCC sector contribution

Industry – Cementitious material substitution





Portfolio company of Momentum

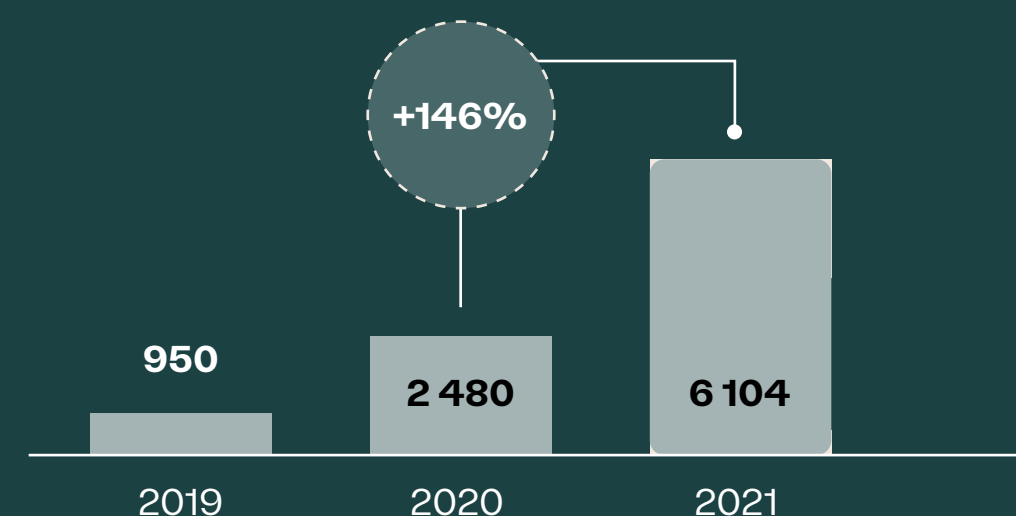
 Batnfjordsøra, Norway

<https://www.nofence.no/en/>



Impact Metrics:

km2 grazed with Nofence collars



Virtual fencing system for improved grazing

Problem

- Global farming practices have become unsustainable, destroying soil health, biodiversity and animal welfare.
- Looking at the US, 27% of US land is pasture or rangeland, yet less than 4% of US cattle are purely grass-fed.

Solution

- Nofence is an agtech company that has developed a virtual fence which enables regenerative farming practices, improving yield, sequestering CO2 and boosting biodiversity.
- The technology is proven and patented, with more than 250 million hours of data on pasture logged from ~38.000 collars to date.

Intended impact

- Grazing livestock can restore and balance natural biodiversity on the ground.
- Managed grazing has been proven to increase the production output per area by as much as 100%, contributing to zero hunger.
- Managed grazing is also one of the most impactful steps towards net-zero through carbon sequestration.

IPCC sector contribution

AFOLU* - Carbon sequestration in agriculture.

*AFOLU: Agriculture, Forestry & Other Land Use





Portfolio company of EIF Ecosystem Integrity Fund

 Hollister, CA, USA

<https://www.zeroavia.com>



Impact Metrics:

3 flight hours with 0.75 MT CO2 abated.

115 MT CO2 estimated savings by 2033.

Plans to enable 500-mile net-zero emission travel by 2023 in a 10-20 seat regional aircraft.

Zero emission hydrogen-electric aviation powertrain

Problem

- Aviation accounts for 2% of global CO2 emissions today – expected to increase by 2-4x in the coming years. These emissions are particularly harmful at high altitudes. Airlines and governments are under high pressure to decarbonise this sector, with many actors making “net-zero” commitments by 2040-2050.

Solution

- ZeroAvia provides the world’s first practical, zero-emission aviation powertrain powered by a hydrogen fuel cell system associated with proprietary software/controls. The powertrain can be retrofitted into existing, already certified airframes, significantly lowering certification hurdles.
- The company aims at sourcing green hydrogen produced by electrolysis directly on-site through partnerships to significantly lower fuel costs for airlines.

Intended impact

- Potential future impact – pounds of jet fuel displaced, and CO2 abated.
- Estimates savings of up to 115 MT CO2 by 2033.

IPCC sector contribution

Transport – Aviation: Energy Efficiency





Thank you for reading!

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